

Griess-Pfleger
LPC# 0971900004/0971905234
Lake County
SF/HRS



CERCLA Site Reassessment

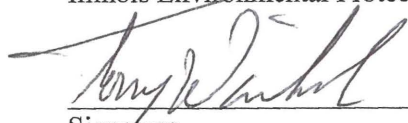


Prepared by:
Office of Site Evaluation
Division of Remediation Management
Bureau of Land

SIGNATURE PAGE

Title: CERCLA Site Reassessment for Griess-Pfleger


Preparer: **Tony Wasilewski**, Project Manager, Office of Site Evaluation,
Illinois Environmental Protection Agency



Signature

7-10-19
Date

Approval: **Patrick Hamblin**, NPL Coordinator, United States Environmental
Protection Agency, Region 5



Signature

7/10/2019
Date

The approval signatures on this page indicate that this document has been authorized for information release to the public through appropriate channels. No other forms or signatures are required to document this information release.

TABLE OF CONTENTS

SECTION	PAGE
1.0 Introduction.....	1
2.0 Site Description and History.....	2
2.1 Site Description.....	2
2.2 Site History.....	3
2.3 CERCLA Investigative History.....	5
3.0 Other Cleanup Authorities and Activities.....	6
4.0 Summary and Conclusion.....	10
5.0 References.....	12

FIGURES

Figure 1.....	Site County Map
Figure 2.....	Site Location Map
Figure 3.....	Site Map
Figure 4.....	4-Mile Radius Map
Figure 5.....	Phase I Map
Figure 6.....	Completion Report Map

APPENDICES

Appendix A.....	Target Compound List
Appendix B.....	NFR Letter
Appendix C.....	Photos

Section 1.0 Introduction

On March 28, 2018 the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Reassessment (SR) at the Griess-Pfleger site Waukegan, Lake County, Illinois. The Griess-Pfleger site (ILD980993562) is the location of a former tannery that is located at the corner of Pershing (aka Sand) and Dahringer Road at 42.375393° latitude and -87.824858° longitude. The lat and long coordinates were taken from the northwest corner of the site at Pershing and Dahringer Road.

The Site Reassessment is performed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) commonly known as Superfund. Current U.S. EPA policy stipulates that a Site Reassessment be conducted to determine the current status of the Griess-Pfleger site. The Site Reassessment consists of an evaluation of recent information to determine if further Superfund investigations are warranted. The Site Reassessment supplements previous work and is not intended to replace previous CERCLA assessments.

The Site Reassessment is designed to evaluate recent information that will help determine if the site qualifies for possible inclusion on the National Priorities List (NPL) or should receive a No Further Remedial Action Planned (NFRAP) designation. At the conclusion of the reassessment process Illinois EPA will recommend that the site be given a NFRAP designation, receive further Superfund investigations, or referred to another state or federal cleanup program.

The Griess-Pfleger site was initially placed on the U.S. EPA's Superfund Enterprise Management System (SEMS) on June 1, 1984 in response to activities that were performed at the site during its operation. A Preliminary Assessment was conducted in June 1987 and a Screening Site Investigation was completed in June 1989.

The Site Reassessment Report will describe current site conditions and illustrate how the site has changed since the last CERCLA investigation in 1989. This report will contain a summary of existing information that will include site history, current site conditions, evaluate past analytical data, and evaluate past remedial activities. The Site Reassessment will also support emergency response or time-critical removal activities if they are warranted.

Section 2.0 Site Description and History

2.1 Site Description

The former tannery is located at the northeast corner of Pershing (aka Sand) and Dahringer Roads in Lake County, Waukegan, Illinois, in the southwest corner of the northwest quarter of Section 15, Township 45 North, Range 12 East of the Third Principal Meridian in Lake County (Figure 1). A site location map can be found in Figure 2. The property encompasses approximately 38 acres. The former tannery's eastern boundary is immediately bordered by the Elgin Joliet and Eastern railroad. To the east of the railroad is the former Commonwealth Edison (ComEd) Waukegan Generating Station, which was acquired by Midwest Generation in 2000. This facility is still currently operating. Lake Michigan is located approximately 0.75 miles east of the site. To the north are several industrial buildings as well as the Johns Manville NPL site. To the west are Pershing Road, Chicago and Northwestern Railroad, Amstutz Expressway, and various residential and commercial properties. Beyond the property's southern boundary are Dahringer Road and various vacant and occupied industrial/commercial properties. The property immediately south of Dahringer Road is a former North Shore Gas manufactured gas plant. The property located southeast of the tannery site is the North Shore Sanitary District wastewater treatment plant. Figure 3, attached shows features surrounding the site.

Census data have been compiled and formatted for use in GIS applications by ESRI, a GIS

software company. ESRI used demographic data from the "Census 2000 Summary File" represented by Census Block Centroids to generate data that can be overlain onto maps for analysis (ESRI). To calculate population in areas surrounding the site, the ESRI census data was overlain onto a map from the region and queried based on distance from the site's boundary. Population data based on GIS analysis for areas surrounding the site is shown below. A map illustrating the site with 4-mile distance rings can be found as an attachment to this report (Figure 4).

Population within 1-Mile

Distance	Population
0-1/4	0
1/4 -1/2	529
1/2 - 1 Mile	4871

2.2 Site History

Griess-Pfleger tannery was operated as a division of Beggs and Cobb Corporation. The facility at once employed over 1000 workers and had approximately 200 workers at the time of closure. The tannery was built in 1917 and operated as a leather tanning facility from 1918 through early 1973. The company processed leather goods through the five-story tanning building. Various inspections were conducted in 1971 by Illinois EPA and the Lake County Health Department. Open burning of refuse and random dumping of wastes on plant property was documented. Wastes included leather shavings, tanning bark shavings, liquids, discarded drums and 5-gallon metal containers. A sludge pit was noted which contained 55-gallon drums. There are no databases that indicate that this site was handled under RCRA. Other inspection

reports noted lack of daily cover; lack of spreading and compacting of refuse; garbage in standing water; and leachate streams. Shortly after the facility closed, a lacquer dust fire occurred which destroyed the interior of several of the main structures. Following the closure, the company slowly cleaned up the property by removing the waste piles to an approved facility and dewatering the sludge pit. The sludge was mixed with backfill material and incorporated into the soil for preliminary cover. Final site cover consisted of two feet of sand and black dirt mix. The site, at the time, was listed as satisfactorily closed and covered on October 12, 1973 by Illinois EPA personnel from the Surveillance Section of the Division of Land Pollution Control. ComEd then acquired the property in 1973. The utility, at the time, had a power plant located adjacent to the property. ComEd demolished the five-story tannery building and all detached buildings, as well as a water tower during the winter of 1973-1974. At the time of purchase ComEd planned to use the site property to expand its wastewater treatment facilities or to extend its coal storage area.

In August 1985 ComEd collected samples for inorganic analysis because the City of Waukegan had expressed an interest in acquiring the site as part of a lakefront development plan. Analysis of the samples revealed high levels of heavy metals. Funding for the development project failed and the City of Waukegan did not acquire the site.

Chemicals typically involved in the tannery process include: sodium sulfate, lime, diethylamine, sulfhydryate, cyanide salts, enzymes, ammonium sulfate or ammonium hydrate, sulfuric acid, sodium chloride, chrome liquor, sodium thiosulfate, and borax. The tanning process produces wastes from these chemical in the form of gaseous reaction products, wastewater, sludge, and solid wastes.

Eight environmental investigations were conducted at the site between 1987 and 2016. They included: Preliminary Site Assessment (Illinois EPA, 1987), Screening Site Inspection (Ecology & Environment, 1990), Phase I Remedial Investigation (Metcalf & Eddy, 1994), Phase

II Investigation (Metcalf & Eddy, 1995), Phase IIA (Metcalf & Eddy, 1997), Phase IIB (Metcalf & Eddy, 1997), Lead and Arsenic Grid Characterization Report (Metcalf & Eddy, 2000), Remediation Objective Report (RETEC Group, 2002), Pre- Remediation Confirmation Soil Sampling Report (URS, 2012), and Remedial Action Completion Report (URS, 2016).

2.3 CERCLA Investigative History

On June 21, 1987, Illinois EPA prepared a Preliminary Assessment (PA) report of the Griess-Pfleger site in Waukegan, IL. No samples were collected during this assessment and a low priority status was recommended at the time for the site and Site Inspection was recommended for the next investigation. During the PA the entire site was not the focus of the investigation. The PA focused on an area of land consisting of 2-5 located adjacent to the former 5 story building within the 38 acre site. This piece of land was associated with waste tannery shavings and is the location of a sludge pit.

The Site Inspection (SI) was completed by Ecology and Environment on March 13, 1990 and after the completion of the SI the site became a state-lead Other Cleanup Authority (OCA) site. The scope of the investigation included interview with site representatives of ComEd. The interviews were conducted to gather information that would aid in the SI activities. A reconnaissance inspection was done in January 1989 to assist in planning for the upcoming sampling activities associated with the SI. At the time of the SI, the surrounding area was flat and contained wetlands on site and on the southern border. The Illinois Beach State Park is approximately 1 mile north and adjacent property is industrial. Waukegan residents are approximately a quarter a mile to the west. At the time of the investigation various metal debris, rusted drums, old production machinery, tires, and wood were observed on the site. During the

SI, six surface and three subsurface soil samples were collected and analyzed for U.S. EPA Target Compound List (Appendix A).

Section 3.0 Other Cleanup Authorities and Activities

Following the Site Inspection conducted by Ecology and Environment in 1990, a series of investigations were conducted to assist in identifying the full environmental impact associated with the tannery. In 1992, ComEd contracted with Metcalf and Eddy, Inc. to conduct a Remedial Investigation. In addition to the Remedial Investigation, the site was enrolled in the Illinois EPA's Site Remediation Program (SRP) in January 1992. All work done at the site after 1992 was conducted under the SRP. The Phase I Remedial Investigation was performed voluntarily, in cooperation with the Illinois EPA. In May and June 1993, a team from Metcalf and Eddy performed various field activities that included the installation of seven shallow groundwater monitoring wells; collection of: eleven sediment samples, 68 soil samples, two geotechnical samples, nine production waste samples, one cistern water sample, and seven groundwater samples; and performance of a magnetometer survey.

Numerous inorganic analytes were identified. Elevated levels of chromium and lead were detected consistently in the surface and subsurface soil throughout Areas II and III (Figure 5). Pesticides, PCBs, and semi volatiles were detected in the soil throughout the site. Groundwater samples were collected from all seven shallow groundwater monitoring wells. Laboratory analysis indicated arsenic and lead were detected in one monitoring well above the Illinois Class I standards of 50 ug/L and 7.5 ug/L respectively. Three of nine production waste samples exceeded TCLP limits for chromium and lead.

From January to September 1995, additional field activities were performed under the SRP as part of a Phase II Remedial Investigation. The purpose of the Phase II activities was to

define the extent of surface and subsurface impact, characterize the type of constituents in the subsurface, and determine if off site areas have been impacted by the tannery's past operations.

The Phase II activities included the speciation of chromium samples, waste volume estimation, and installation of one exploratory soil boring and five additional monitoring wells; and collecting 81 surface/subsurface soil samples, two production waste samples, three wetland sediment/surface water samples, two dioxin/furan samples, two asbestos samples, and five groundwater samples. Based upon the results obtained during the Phase II, four additional monitoring wells were installed, and 14 groundwater samples were collected using a Geoprobe unit.

Groundwater results indicated arsenic, chromium, lead and mercury were detected above Illinois EPA regulatory limits. Arsenic had exceeded the Illinois Class I Groundwater Standard and had migrated to the eastern edge of the tannery property boundary. Two additional monitoring wells were installed on the ComEd property to confirm if arsenic containing groundwater had migrated. The analytical results confirmed the arsenic migration. Additional monitoring wells were installed to delineate the arsenic plume. Soil sample speciation for chromium confirmed that the chromium present in the soil at the time was the more stable trivalent chrome and not hexavalent chrome.

In the summer of 2000, Metcalf and Eddy conducted soil sampling on the site to evaluate the arsenic and lead impact to the soil. A 50' by 50' grid was set up on the site in areas that had been identified in previous investigations. There were approximately 600 soil samples collected during this investigation.

In August 2002, a Remediation Objectives Report was completed and submitted to the Illinois EPA Site Remediation Program. This report summarized the pathways of concern and source material for the different remediation objectives.

There were three types of source material identified in the report that needed to be addressed under the Remedial Objectives Report. The first source material was the contents of a rusted 5-gallon pail. The contents of the pail failed Toxicity Characteristic Leaching Procedure (TCLP) for lead. The material from this rusted pail was subsequently removed and disposed offsite in an appropriate manner. The second source material was gray, white and pink hide material associated with the tanning industry and exceeded TCLP limits for chromium. The third source material were soil borings that exceeded mercury TCLP limits. In this report, different pathways were evaluated, and remediation objectives discussed (Metcalf & Eddy 2002).

A Remedial Action Plan was completed in July 2012 by URS Corporation. The report pertains to the remediation of impacted soil at the site. The Remedial Action Plan reviews the remediation objectives, describes the remedial technology, provides guidelines to implement the selected remedy, and discusses post remediation verification soil sampling. Remediation objectives were developed for three exposure pathways: direct contact, groundwater ingestion, and groundwater discharge to surface water. Contaminants of concern included lead, PCBs, arsenic, and semi volatiles. Excavation of soil, engineered barriers and institutional controls were implemented to address the exposure pathways.

The Remedial Action Completion Report was finished in February 2016. The field implementation of the remedial action began in January 2013 and was completed in October 2015. The remedial action was completed in four phases; soil remediation, substation construction, additional site grading and engineered barrier installation, and site restoration. Remediation objectives for the site were achieved through excavation of the impacted soil and installation of engineered barriers over large portions of the site.

Following soil remediation activities, ComEd installed an electrical substation and transmission towers at the site. The construction activities began in April 2012 and were completed in May 2014. The footprint of the substations is approximately 48,700 square yards. A total of 14 transmission towers were installed across the site.

During the soil remediation, a total of 22,833 tons of impacted soils were excavated from Areas 1A, 1B, 2, and 3B and shipped to a landfill for disposal (Figure 6). Also, a total of 2,290 tons of PCB and 71 tons of mercury impacted soils were excavated from Areas 3B and shipped to a landfill for disposal (Figure 6). A total of 13,121 tons of impacted soils and debris from the construction of the substation and installation of the transmission tower caissons were shipped to a landfill for disposal during the substation construction. During the engineered barrier installation, a total of 1,538 tons of impacted soils from the site grading and engineered barrier installation that could not be reused on-site were shipped to a landfill for disposal.

Following the remedial action and facility construction and after grading the site to an appropriate elevation, engineered barriers were installed over 467,300 square feet in Areas 1A, 2, and 3B, and over 282,500 square feet beneath the electrical substation (Figure 6). In addition, stormwater management areas were installed over 194,000 square feet in Area 3A and over 81,500 square feet around the electrical substation. To facilitate the installation of the engineered barriers and stormwater management areas, 10,500 cubic yards of crushed limestone, 14,200 cubic yards of granular material, 3,000 cubic yards of furnished excavation, 4,500 cubic yards of clay backfill, 3,900 cubic yards of earthen fill, and 15,900 cubic yards of topsoil were imported to the site during the substation construction and engineered barrier installation.

The engineered barrier under the electrical substation consisted of compacted native fill covered by a non-woven geo-textile fabric overlaid by 12 inches of crushed limestone. The stormwater management area around the substation consisted of visual barrier overlaid by

topsoil of 12 inches and low maintenance vegetation. The engineered barrier in Areas 1A, 2, and 3B consisted of permeable geotextile liner covered with an average of 11.2 inches of gravel which was overlaid by an average of 12.4 inches of topsoil. The stormwater management area in Area 3A consisted of visual barrier overlaid by an average of 7.4 inches of clay which was overlaid by an average of 6.2 inches of topsoil and low-maintenance vegetation.

Following the installation of engineered barriers, the areas receiving topsoil were fertilized, mulched, and seeded with an appropriate cover crop to establish a ground cover. The site was graded to facilitate surface water flow per agreed upon grade lines with the City of Waukegan. Additional bushes, shrubs, and trees were planted on the berms, swales, and in open areas for aesthetic purposes.

The remedial action successfully achieved the remediation objectives for the soil ingestion and outdoor inhalation exposure pathways. The remediation objectives were achieved by removing impacted soils and through the installation of engineered barriers and stormwater management areas over a large portion of the site. The remediation objectives for the soil and groundwater components of the groundwater ingestion exposure pathways were addressed in the NFR Letter (Appendix B). It is not known if any post-remediation groundwater sampling has been done. A comprehensive "No Further Remediation" (NFR) letter was issued for the 38-acre site on September 19, 2016. Elements of the NRF letter include restriction to industrial/commercial land use, preventive controls, engineering controls, and institutional controls (Illinois EPA 2016).

Section 4.0 Summary and Conclusion

The Griess-Pfleger site was initially placed on the U.S. EPA's Superfund Enterprise Management System (SEMS) (formerly known as CERCLIS) on June 1, 1984 in response to

activities that were performed at the site during its operation. A Preliminary Assessment was conducted in June 1987 and a Screening Site Investigation was completed in June 1989. In additions to the CERCLA investigation performed on the site, additional evaluations of the site were conducted. These additional investigations led to ComEd enrolling the site into the Illinois EPAs Site Remediation Program (SRP) to assist in remediation activities. The investigations focused on source identification and exposure pathway analysis. Contaminants of concern associated with the site included lead, PCB, arsenic, and semi volatiles. Presently an electrical substation in located onsite.

The site completed corrective action issues and received a comprehensive NFR letter in 2016 (Appendix B NFR Letter). The groundwater pathway and the soil component of the groundwater pathway were addressed in the NFR letter and the Remedial Action Completion Report by using institutional controls such as prohibiting the use of groundwater wells as a water source on site (Appendix B). Environmental Land Use Controls (ELUC) are institutional controls that were used for off-site groundwater use at surrounding properties (URS 2016). These properties are found in the Remedial Action Completion Report. Engineered barriers were used to address the soil ingestion and outdoor inhalation pathways (URS 2016 & Appendix B).

5.0 References

- Preliminary Assessment, Illinois Environmental Protection Agency, June 21. 1987.
- Screening Site Inspection, Ecology & Environment, March 13, 1990.
- Phase I Remedial Investigation, Metcalf & Eddy, March 1994.
- Phase II Remedial Investigation, Metcalf & Eddy, November 22. 1995.
- Phase IIA Remedial Investigation (monitoring well installation), Metcalf & Eddy, 1997.
- Phase IIB Remedial Investigation (arsenic plume investigation), Metcalf & Eddy, 1997.
- Arsenic and Lead Grid Soil Sampling Characterization, Metcalf & Eddy, March 14, 2000.
- Remediation Objectives Report, The RETEC Group, Inc., August 8, 2002.
- Remedial Action Completion Report, URS, February 23, 2016.
- NFR Letter, Illinois Environmental Protection Agency, September 19, 2019.

FIGURES

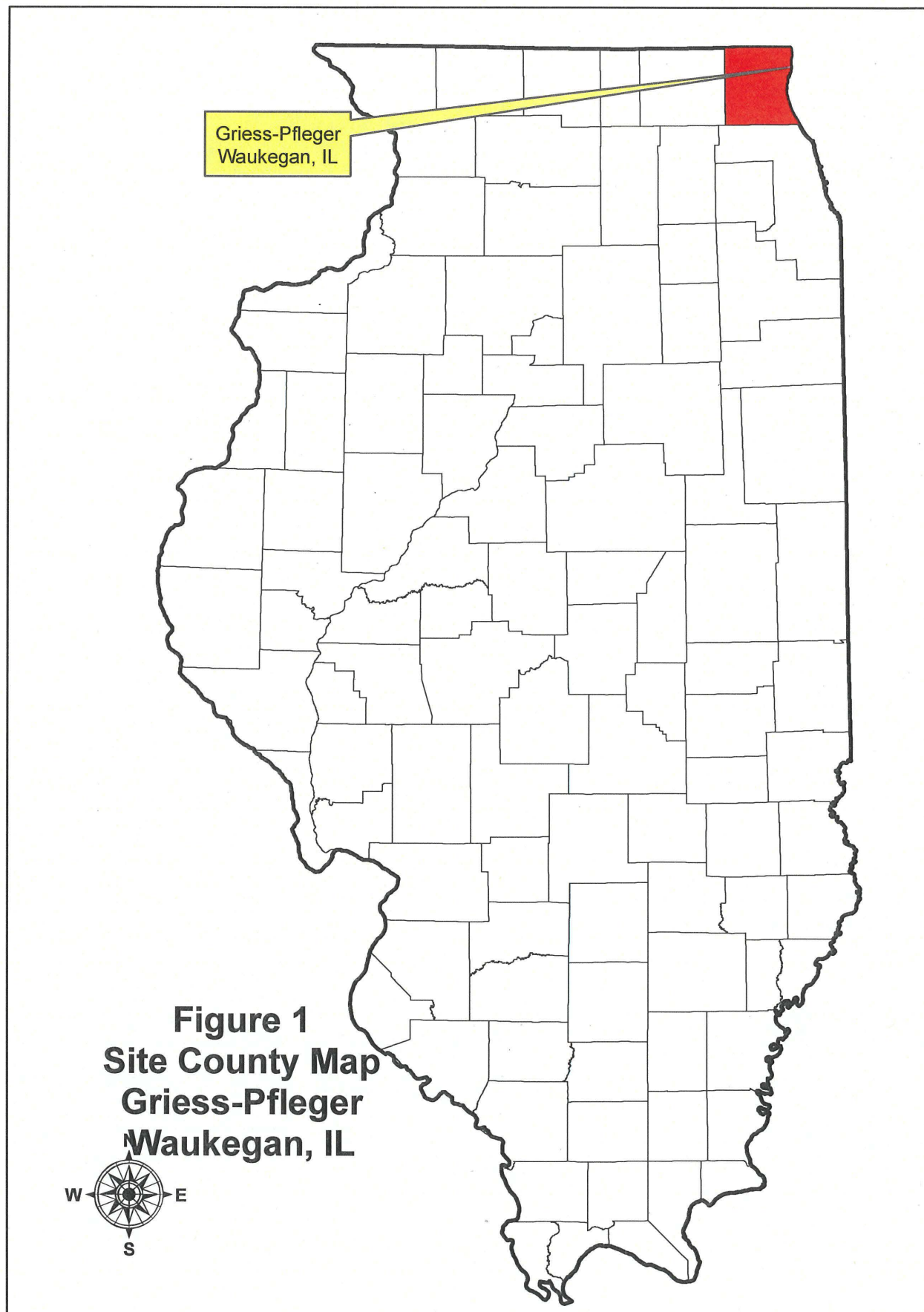


Figure 2
Site Location Map
Griess-Pfleger

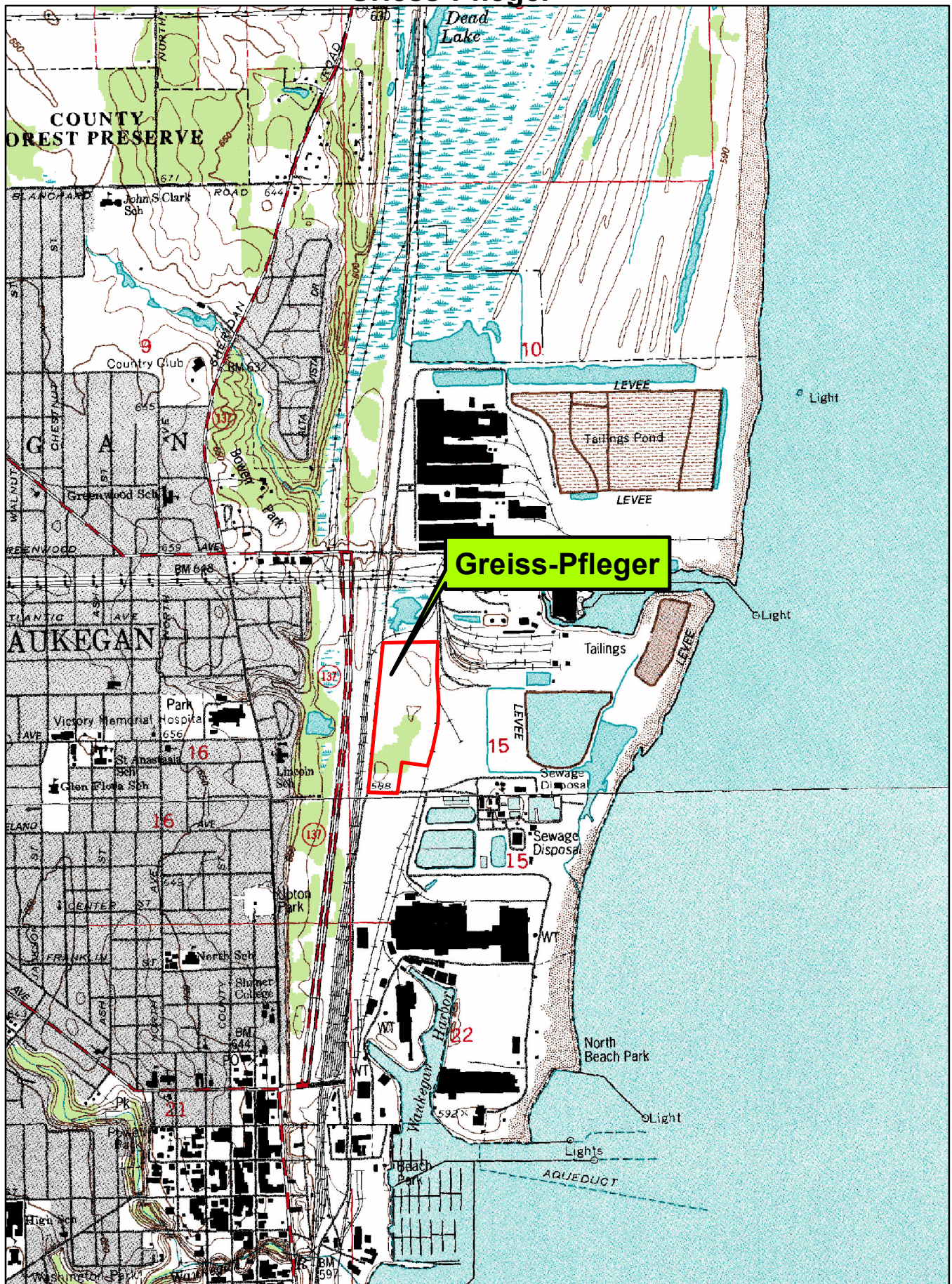


Figure 3
Site Map

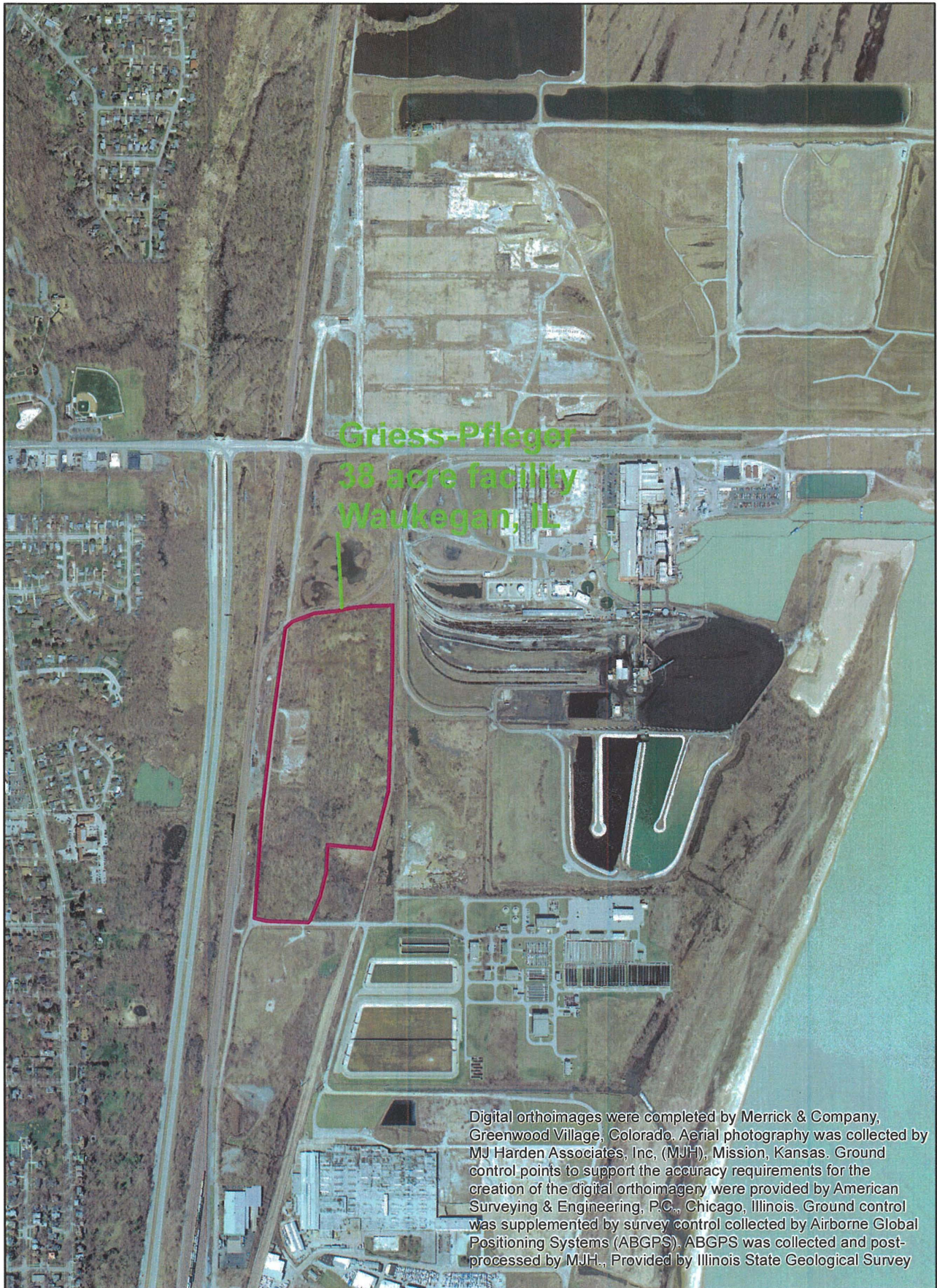
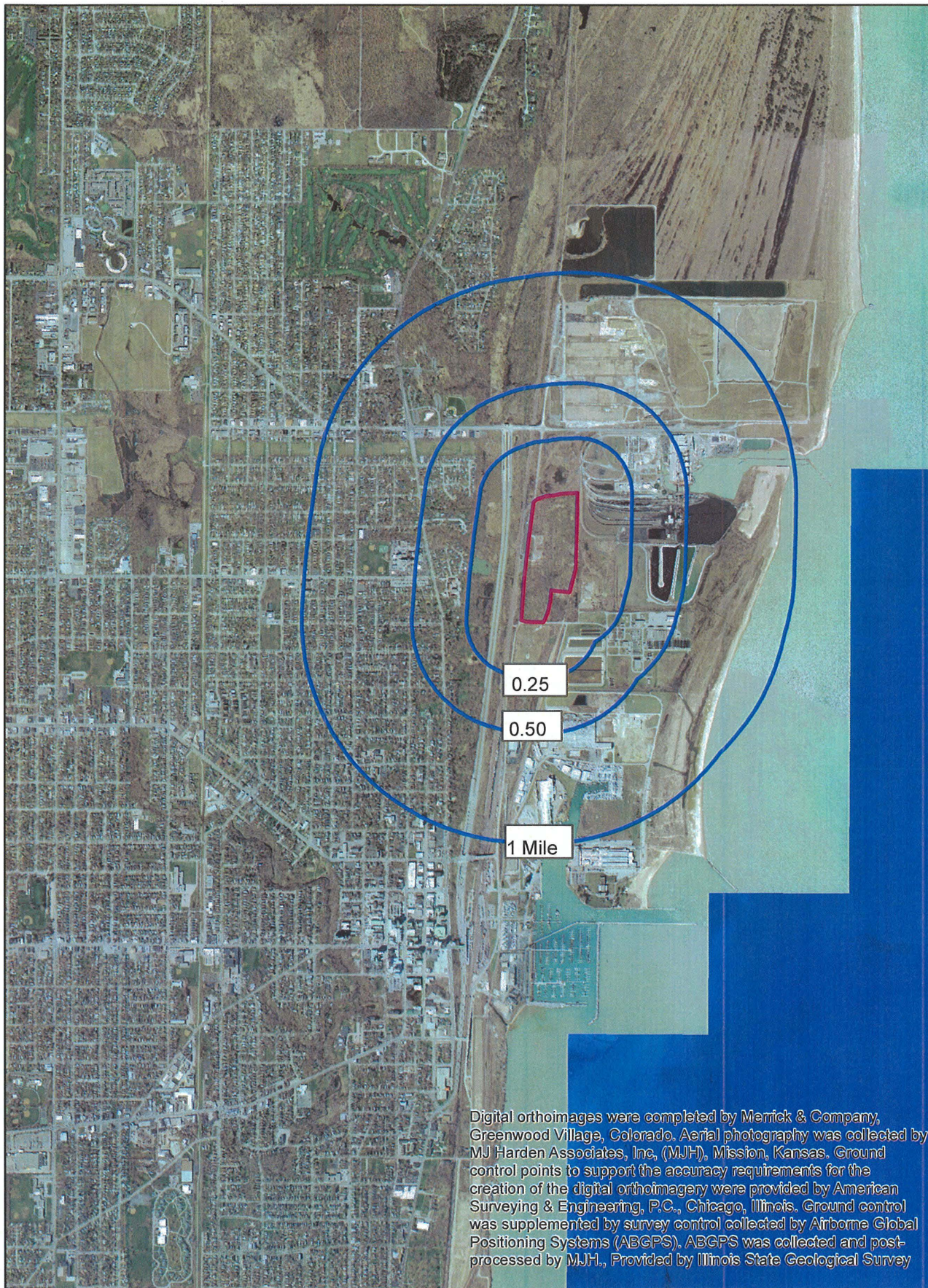


Figure 4
1-Mile Radius Map





LEGEND

- LOCATION OF FORMER BUILDINGS
- WETLAND
- SURFACE SOIL SAMPLE LOCATION (PHASE II)
- SUBSURFACE SOIL SAMPLE LOCATION (PHASE I)
- SURFACE WATER AND SEDIMENT SAMPLE LOCATION (PHASE II)

POWER LINES
FROM POWER
GENERATING
STATION

GREENWOOD AVE.

AUSTIN EXPRESSWAY (4 LANE)

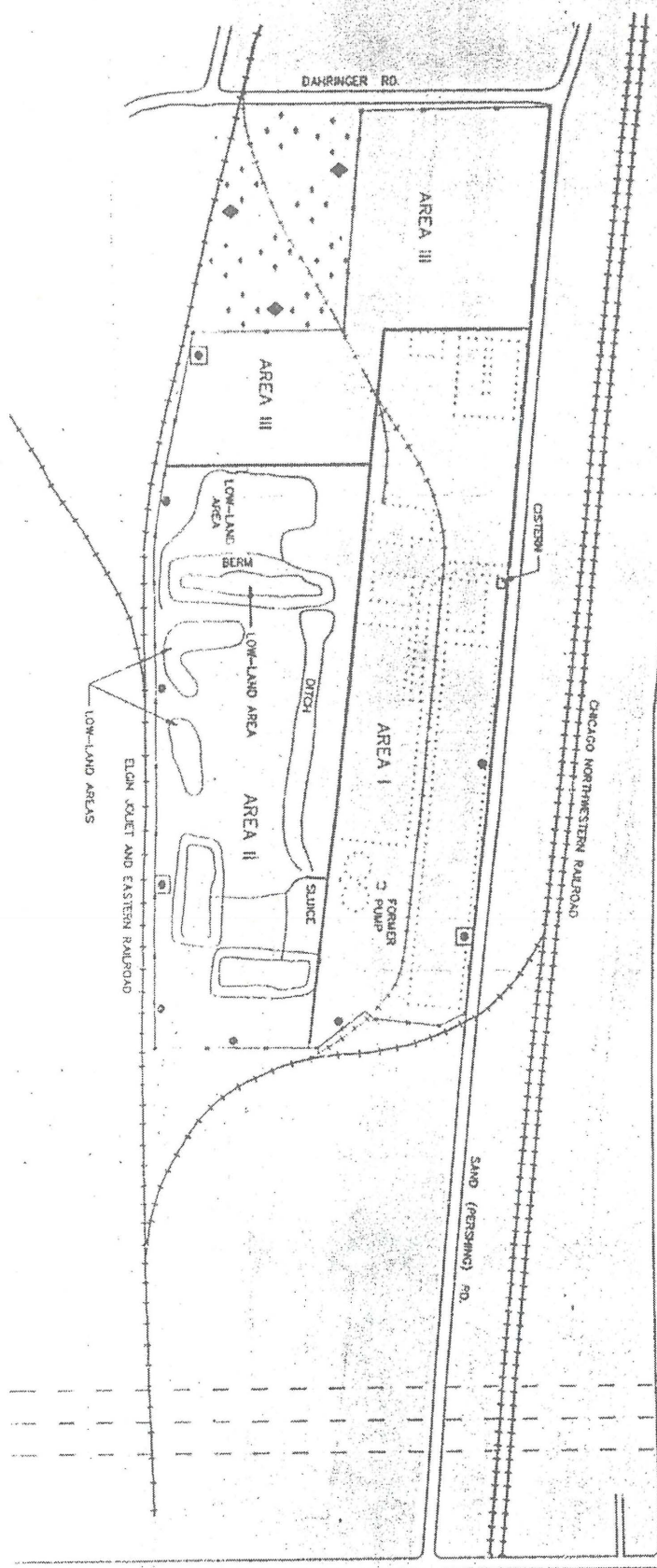
CHICAGO NORTHWESTERN RAILROAD

SAND (PENDING) RD.

DAHRINGER RD.

ELGIN JOLIET AND EASTERN RAILROAD

LOW-LAND AREAS



- AREA I FORMER PRODUCTION AREA
- AREA II WASTEWATER DISCHARGE AREA
- AREA III PRODUCTION WASTE DISPOSAL AREA

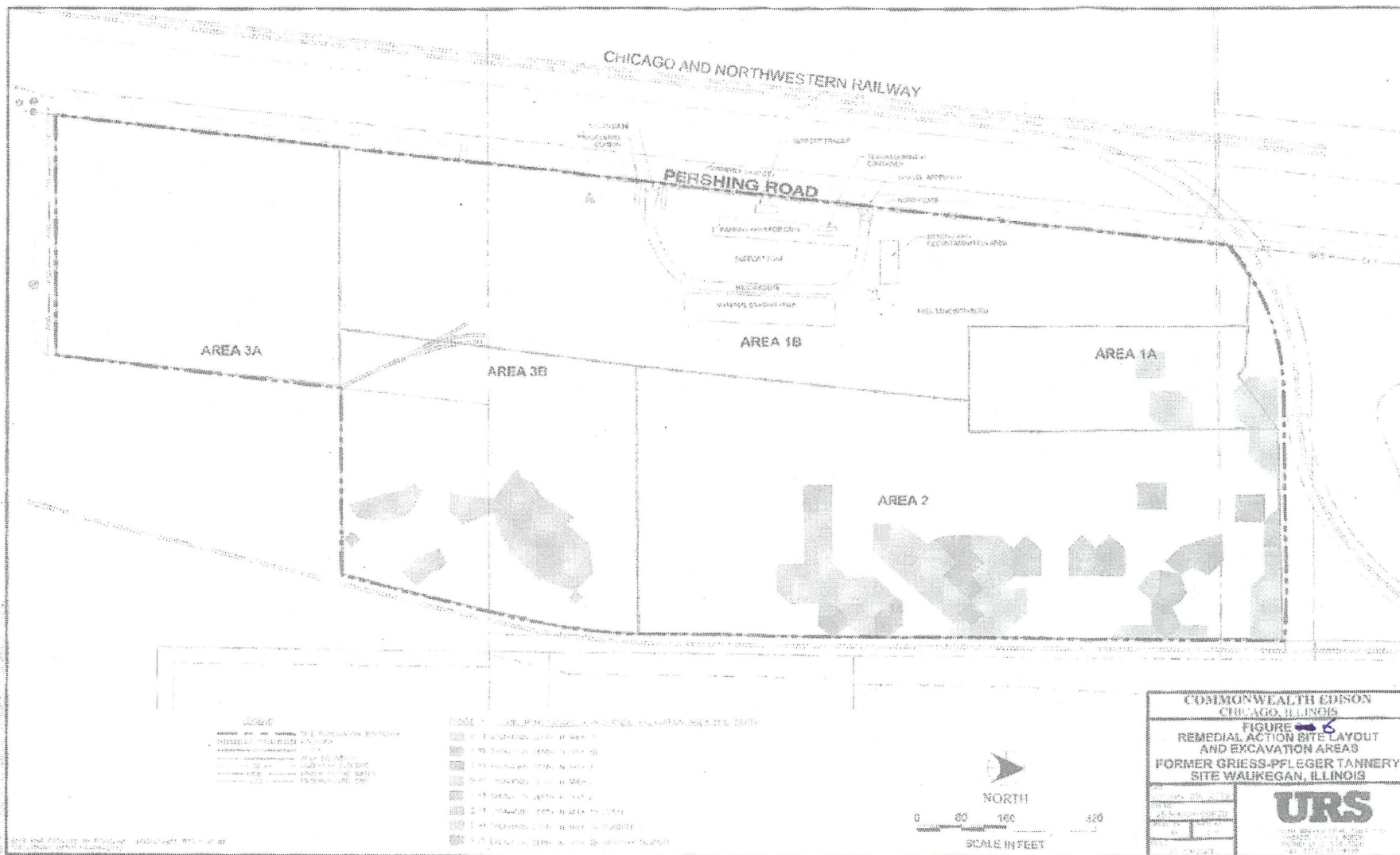


METCALF & EDDY

DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
RE. NO.	REVISION

0 150 300 400
APPROXIMATE SCALE IN FEET

FIGURE 05
ADDITIONAL SAMPLE COLLECTION TO MORE FILLY OF THE
COMMONWEALTH EDISON COMPANY
FORMER GRESS-PLEGER TANNERY
WAUKEGAN, ILLINOIS



APPENDIX A

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chloride	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroethene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether
Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate

1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobalt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	

APPENDIX B

NFR Letter



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

ALEC MESSINA, ACTING DIRECTOR

(217) 524-3300

September 19, 2016

CERTIFIED MAIL

7014 2120 0002 3289 5572

Commonwealth Edison
Attn: Mark Castro
Two Lincoln Center, 7th Floor
Oakbrook Terrace, Illinois 60181

Re: 0971905234--Lake County
Waukegan/Greiss-Pfleger
Site Remediation Program/Technical Reports
No Further Remediation Letter

EPA-DIVISION OF RECORDS MANAGEMENT
RELEASABLE

OCT 25 2016

REVIEWER: EMI

Dear Mr. Castro:

The *Remedial Action Completion Report* (received February 26, 2016/Log No. 16-61558) and *Response to Comments* (received July 1, 2016/Log No. 16-62520), as prepared by URS Corporation (AECOM) for the above-referenced Remediation Site, have been reviewed and approved by the Illinois Environmental Protection Agency ("Illinois EPA"). These Reports demonstrate the remediation objectives approved for the site, in accordance with 35 Illinois Administrative Code Part 742, are above the existing concentrations of regulated substances and that the remedial action was completed in accordance with the *Remedial Action Plan* (received July 30, 2012/Log No. 12-51366) and 35 Illinois Administrative Code Part 740.

The Remediation Site, consisting of 38 acres, is located at 725 Pershing Road, Waukegan, Illinois. Pursuant to Section 58.10 of the Illinois Environmental Protection Act ("Act") (415 ILCS 5/1 et seq.), your request for a no further remediation determination is granted under the conditions and terms specified in this letter. The Remediation Applicant, as identified on the Illinois EPA's Site Remediation Program DRM-1 Form (received March 22, 2016/Log No. 16-61794), is Commonwealth Edison Company.

This comprehensive No Further Remediation Letter ("Letter") signifies a release from further responsibilities under the Act for the performance of the approved remedial action. This Letter shall be considered prima facie evidence that the Remediation Site described in the attached Illinois EPA Site Remediation Program Environmental Notice and shown in the attached Site Base Map does not constitute a threat to human health and the environment and does not require further remediation under the Act if utilized in accordance with the terms of this Letter.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601

Conditions and Terms of Approval

Level of Remediation and Land Use Limitations

- 1) The Remediation Site is restricted to industrial/commercial land use.
- 2) The land use specified in this Letter may be revised if:
 - a) Further investigation or remedial action has been conducted that documents the attainment of objectives appropriate for the new land use; and
 - b) A new Letter is obtained and recorded in accordance with Title XVII of the Act and regulations adopted thereunder.

Preventive, Engineering, and Institutional Controls

The implementation and maintenance of the following controls are required as part of the approval of the remediation objectives for this Remediation Site.

Preventive Controls:

- 3) At a minimum, a safety plan should be developed to address possible worker exposure in the event that any future excavation and construction activities may occur within the contaminated soil. Any excavation within the contaminated soil will require implementation of a safety plan consistent with NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, OSHA regulations (particularly in 29 CFR 1910 and 1926), state and local regulations, and other USEPA guidance. Soil excavated from below the approved alternative engineered barriers must be returned to the same depth from which it was excavated or properly managed or disposed in accordance with applicable state and federal regulations.

Engineering Controls:

- 4) The storm water management alternative engineered barrier, which is comprised of snow fence overlain by 6 inches of clay fill covered by 6 inches of clean earthen fill, as shown on the attached Site Base Map, must remain over the contaminated soils. This alternative barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 5) The alternative engineered barrier, which is comprised of a woven polypropylene geotextile (HP 570) overlain by 10 inches of gravel and 8 inches of topsoil, as shown on the attached Site Base Map, must remain over the contaminated soils. This alternative barrier must be properly maintained as an engineered barrier to inhibit ingestion of the contaminated media.
- 6) The substation alternative engineered comprised of compacted native fill overlying a non-woven geotextile fabric followed by 12 inches of gravel (crushed limestone), as shown on the Site Base Map.

Institutional Controls:

- 7) Any existing buildings or any future buildings constructed on the site must contain a full concrete slab-on-grade floor or full concrete basement floor and walls with no sump(s).
- 8) No person shall construct, install, maintain, or operate a well at the Remediation Site. All water supplies and water services for the Remediation Site must be obtained from a public water supply system. The provisions of this institutional control shall be applicable to all water usage (e.g., domestic, industrial/commercial uses and outdoor watering).
- 9) The Environmental Land Use Control ("ELUC") filed June 23, 2003 with the Lake County Recorder's office for the real property located at 401 E. Greenwood Avenue, Waukegan, Illinois must remain effective. Unless other remedies that may be available are satisfied, failure to comply with the limitations or requirements of the recorded ELUC may result in avoidance of this NFR Letter.
- 10) The Environmental Land Use Control ("ELUC") filed October 13, 2006 with the Lake County Recorder's office for the real property located at 0 East Greenwood Avenue, Waukegan, IL and 0 Dahringer Road, Waukegan, Illinois must remain effective. Unless other remedies that may be available are satisfied, failure to comply with the limitations or requirements of the recorded ELUC may result in avoidance of this NFR Letter.
- 11) The Environmental Land Use Control ("ELUC") filed May 14, 2007 with the Lake County Recorder's office for the real property located at 184 Dahringer Road (Lot 1), Waukegan, Illinois must remain effective. Unless other remedies that may be available are satisfied, failure to comply with the limitations or requirements of the recorded ELUC may result in avoidance of this NFR Letter. The failure to comply with the limitations or requirements of the recorded ELUC may also be grounds for an enforcement action pursuant to Title VIII of the Act.
- 12) The Environmental Land Use Control ("ELUC") filed May 14, 2007 with the Lake County Recorder's office for the real property located at 184 Dahringer Road (Lot 2), Waukegan, Illinois must remain effective. Unless other remedies that may be available are satisfied, failure to comply with the limitations or requirements of the recorded ELUC may result in avoidance of this NFR Letter. The failure to comply with the limitations or requirements of the recorded ELUC may also be grounds for an enforcement action pursuant to Title VIII of the Act.

Other Terms

- 13) Areas outside the Remediation Site boundaries or specific engineered barrier locations, as shown in the attached Site Base Map, are not subject to any other institutional or engineered barrier controls.
- 14) Where the Remediation Applicant is not the sole owner of the Remediation Site, the Remediation Applicant shall complete the attached *Property Owner Certification of the No Further Remediation Letter under the Site Remediation Program* Form. This certification, by original signature of each property owner, or the authorized agent of the owner(s), of the Remediation Site or any portion thereof who is not a Remediation Applicant shall be recorded along with this Letter.

REVIEWER: EMI

OCT 25 2016

LEP DIVISION OF RECORDS MANAGEMENT
RECEIVED

- 15) Further information regarding this Remediation Site can be obtained through a written request under the Freedom of Information Act (5 ILCS 140) to:

Illinois Environmental Protection Agency
Attn: Freedom of Information Act Officer
Division of Records Management #16
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

- 16) Pursuant to Section 58.10(f) of the Act (415 ILCS 5/58.10(f)), should the Illinois EPA seek to void this Letter, the Illinois EPA shall provide notice to the current title holder and to the Remediation Applicant at the last known address. The notice shall specify the cause for the voidance, explain the provisions for appeal, and describe the facts in support of this cause. Specific acts or omissions that may result in the voidance of the Letter under Sections 58.10(e)(1)-(7) of the Act (415 ILCS 5/58.10(e)(1)-(7)) include, but shall not be limited to:

- a) Any violation of institutional controls or the designated land use restrictions;
- b) The failure to operate and maintain preventive or engineering controls or to comply with any applicable groundwater monitoring plan;
- c) The disturbance or removal of contamination that has been left in-place in accordance with the Remedial Action Plan. Access to soil contamination may be allowed if, during and after any access, public health and the environment are protected consistent with the Remedial Action Plan;
- d) The failure to comply with the recording requirements for this Letter;
- e) Obtaining the Letter by fraud or misrepresentation;
- f) Subsequent discovery of contaminants, not identified as part of the investigative or remedial activities upon which the issuance of the Letter was based, that pose a threat to human health or the environment;
- g) The failure to pay the No Further Remediation Assessment Fee within forty-five (45) days after receiving a request for payment from the Illinois EPA;
- h) The failure to pay in full the applicable fees under the Review and Evaluation Services Agreement within forty-five (45) days after receiving a request for payment from the Illinois EPA.

- 17) Pursuant to Section 58.10(d) of the Act, this Letter shall apply in favor of the following persons:

- a) Commonwealth Edison Company;
- b) The owner and operator of the Remediation Site;

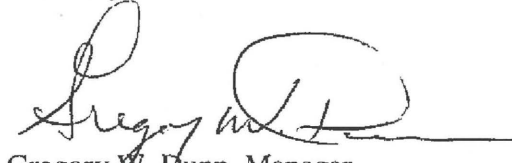
- c) Any parent corporation or subsidiary of the owner of the Remediation Site;
 - d) Any co-owner, either by joint-tenancy, right of survivorship, or any other party sharing a relationship with the owner of the Remediation Site;
 - e) Any holder of a beneficial interest of a land trust or inter vivos trust, whether revocable or irrevocable, involving the Remediation Site;
 - f) Any mortgagee or trustee of a deed of trust of the owner of the Remediation Site or any assignee, transferee, or any successor-in-interest thereto;
 - g) Any successor-in-interest of the owner of the Remediation Site;
 - h) Any transferee of the owner of the Remediation Site whether the transfer was by sale, bankruptcy proceeding, partition, dissolution of marriage, settlement or adjudication of any civil action, charitable gift, or bequest;
 - i) Any heir or devisee of the owner of the Remediation Site;
 - j) Any financial institution, as that term is defined in Section 2 of the Illinois Banking Act and to include the Illinois Housing Development Authority, that has acquired the ownership, operation, management, or control of the Remediation Site through foreclosure or under the terms of a security interest held by the financial institution, under the terms of an extension of credit made by the financial institution, or any successor-in-interest thereto; or
 - k) In the case of a fiduciary (other than a land trustee), the estate, trust estate, or other interest in property held in a fiduciary capacity, and a trustee, executor, administrator, guardian, receiver, conservator, or other person who holds the remediated site in a fiduciary capacity, or a transferee of such party.
- 18) This letter, including all attachments, must be recorded as a single instrument within forty-five (45) days of receipt with the Office of the Recorder of Lake County. For recording purposes, the Illinois EPA Site Remediation Program Environmental Notice attached to this Letter should be the first page of the instrument filed. This Letter shall not be effective until officially recorded by the Office of the Recorder of Lake County in accordance with Illinois law so that it forms a permanent part of the chain of title for the former Greiss-Pfleger property.
- 19) Within thirty (30) days of this Letter being recorded by the Office of the Recorder of Lake County, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:

Ms. P.J. Gebhardt
Illinois Environmental Protection Agency
Bureau of Land/RPMS #24
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

20) In accordance with Section 58.10(g) of the Act, a No Further Remediation Assessment Fee based on the costs incurred for the Remediation Site by the Illinois EPA for review and evaluation services will be applied in addition to the fees applicable under the Review and Evaluation Services Agreement. Request for payment of the No Further Remediation Assessment Fee will be included with the billing statement.

If you have any questions regarding the former Greiss-Pfleger property, you may contact the Illinois EPA project manager, James L. Baldwin at (217) 524-7207.

Sincerely,



NW
Gregory W. Dunn, Manager
Remedial Project Management Section
Division of Remediation Management
Bureau of Land

Attachments: Illinois EPA Site Remediation Program Environmental Notice
Site Base Map
Property Owner Certification of No Further Remediation Letter under the Site
Remediation Program Form
Instructions for Filing the NFR Letter

cc: David Meiri
URS Corporation (AECOM)
100 South Wacker, Suite 500
Chicago, IL 60606

Bureau of Land File

Ms. P.J. Gebhardt

PREPARED BY:

Name: Mark Castro
Commonwealth Edison Company

Address: Two Lincoln Center, 7th Floor
Oakbrook Terrace, IL 60181

RETURN TO:

Name: Mark Castro
Commonwealth Edison Company

Address: Two Lincoln Center, 7th Floor
Oakbrook Terrace, IL 60181

THE ABOVE SPACE FOR RECORDER'S OFFICE

This Environmental No Further Remediation Letter must be submitted by the remediation applicant within 45 days of its receipt, to the Office of the Recorder of Lake County.

Illinois State EPA Number: 0971905234

Commonwealth Edison Company, the Remediation Applicant, whose address is Two Lincoln Center, 7th Floor, Oakbrook Terrace, IL 60181 has performed investigative and/or remedial activities for the remediation site depicted on the attached Site Base Map and identified by the following:

1. Legal description or Reference to a Plat Showing the Boundaries:

Parcel 1B – 26.73 acres

That part of the West ½ of the Northwest ¼ of Section 15, Township 45 North, Range 12 East of the Third Principal Meridian, lying East of and adjoining Sand Street, now known as Pershing Road, as originally conveyed by deed to City of Waukegan for street purposes recorded January 19, 1915 as Document 157222 and lying Southerly of and adjoining the south line of the 50.00 foot switch railway right-of-way described in the deed from James Morrow and wife, to Wilder Tanning Company, dated December 23, 1915 and Recorded December 23, 1915 as Document 16510, in Book 205 of Deeds, Page 471, (excepting therefrom that part conveyed by the Griess-Pfleger Tanning Company to Elgin, Joliet, and Eastern Railway Company by Deed dated March 23, 1920 and Recorded May 20, 1920 as Document 192842 in Book 228 of Deeds, Page 395 also excepting that part thereof conveyed by the Griess-Pfleger Tanning Company to the Elgin, Joliet and Eastern Railway Company, by Deed dated March 31, 1920 and

Recorded May 20, 1920 as Document 192843, in Book 228 of Deeds, Page 396) in Lake County, Illinois.

Parcel 1C – 8.26 acres

That part of the Northwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 15, Township 45 North, Range 12 East of the Third Principal Meridian, described as follows: Commencing at the Northwest corner of the Southwest $\frac{1}{4}$ of fractional Section 15, Township 45 North, Range 12 East of the Third Principal Meridian; thence East with and along the north line of said Southwest $\frac{1}{4}$ Section, a distance of 390.70 feet, more or less, to the point of beginning in the Easterly line of said Sand Street, now known as Pershing Road, said point being 150.00 feet easterly from, measured at right angles to the easterly right-of-way line of the Chicago and Northwestern Railway Company; thence Southerly with and along the Easterly line of said Sand Street, being parallel with the said easterly right-of-way line of said railway company, a distance of 847.40 feet to a point in the north line of the property of the North Shore Gas Company, said point being 841.50 feet due South from the north line of said Southwest $\frac{1}{4}$ Section; thence Easterly with and along the north line of the property of the North Shore Gas Company, a distance of 460.20 feet to a point, said point being 841.50 feet due South from the north line of said Southwest $\frac{1}{4}$ Section; thence Northerly along a line a distance of 847.40 feet to a point in the north line of said Southwest $\frac{1}{4}$ Section, said point being 460.20 feet due east of the point of beginning; thence West along the north line of said Southwest $\frac{1}{4}$ Section, 460.20 feet to the point of beginning, (except that part thereof falling in Dahringer Road over and across the south 60.00 feet of land herein created by instrument dated May 23, 1919 and Recorded September 29, 1928 as Document 325321) in Lake County, Illinois.

Parcel 1D – 2.30 acres

That part of the Northwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 15, Township 45 North, Range 12 East of the Third Principal meridian, described as follows: Beginning at a point on the south line of the Southwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 15, Township 45 North Range 12 East of the Third Principal Meridian, said point being 76.08 feet westerly from the southeast corner of the Southwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of said Section 15, measured with and along the south line of said Quarter Quarter Section; thence Southwesterly along a line making a southwest angle of $74^{\circ}54'$ with the south line of said Quarter Quarter Section, 274.90 feet; thence Westerly along a line making a northwest angle of $105^{\circ}06'$ with the last described course and parallel to the south line of said Quarter Quarter Section, 357.70 feet to a point on the westerly right-of-way of the Elgin, Joliet and Eastern Railway Company (being the EJ&E ROW Line prior to its conveyance of this parcel in Deed recorded May 6, 1920 as Document 192356); thence Northeasterly with and along said westerly right-of-way and making a northeast angle of $83^{\circ}04'$ with the last described course 267.55 feet to a point on the south line of said Southwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ - Quarter Quarter Section; thence Easterly with and along the south line of said Quarter Quarter Section, making a southeast angle of $96^{\circ}56'$ with the last described course 397.09 feet to the point of beginning, in Lake County, Illinois.

2. Common Address: 725 Pershing Road, Waukegan, Illinois 60085

3. Real Estate Tax Index/Parcel Index Number:
Parcel 1B => 08-15-100-005
Parcel 1C => part of 08-15-300-005
Parcel 1D => part of 08-15-300-005
4. Remediation Site Owner: Commonwealth Edison Company
5. Land Use: Industrial/Commercial
6. Site Investigation: Comprehensive

See NFR letter for other terms.

(Illinois EPA Site Remediation Program Environmental Notice)



**PROPERTY OWNER CERTIFICATION OF THE NFR LETTER
UNDER THE SITE REMEDIATION PROGRAM**

Where the Remediation Applicant (RA) is not the sole owner of the remediation site, the RA shall obtain the certification by original signature of each owner, or authorized agent of the owner(s), of the remediation site or any portion thereof who is not an RA. The property owner(s), or the duly authorized agent of the owner(s) must certify, by original signature, the statement appearing below. This certification shall be recorded in accordance with Illinois Administrative Code 740.620.

Include the full legal name, title, the company, the street address, the city, the state, the ZIP code, and the telephone number of all other property owners. Include the site name, street address, city, ZIP code, county, Illinois inventory identification number and real estate tax index/parcel index number.

A duly authorized agent means a person who is authorized by written consent or by law to act on behalf of a property owner including, but not limited to:

1. For corporations, a principal executive officer of at least the level of vice-president;
2. For a sole proprietorship or partnership, the proprietor or a general partner, respectively; and
3. For a municipality, state or other public agency, the head of the agency or ranking elected official.

For multiple property owners, attach additional sheets containing the information described above, along with a signed, dated certification for each. All property owner certifications must be recorded along with the attached NFR letter.

Property Owner Information
Owner's Name: _____
Title: _____
Company: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____ Phone: _____
Site Information
Site Name: _____
Site Address: _____
City: _____ State: _____ Zip Code: _____ County: _____
Illinois inventory identification number: _____
Real Estate Tax Index/Parcel Index No. _____
I hereby certify that I have reviewed the attached No Further Remediation Letter and that I accept the terms and conditions and any land use limitations set forth in the letter.
Owner's Signature: _____ Date: _____
SUBSCRIBED AND SWORN TO BEFORE ME this _____ day of _____, 20__
_____ Notary Public

The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. If the Remediation Applicant is not also the sole owner of the remediation site, this form must be completed by all owners of the remediation site and recorded with the NFR Letter. Failure to do so may void the NFR Letter. This form has been approved by the Forms Management Center. All information submitted to the Site Remediation Program is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines.

Notice to Remediation Applicant

Please follow these instructions when filing the NFR letter with the County Recorder's Office

Instructions for Filing the NFR Letter

The following documents must be filed:

- A. Body of the NFR Letter (contains appropriate terms and conditions, tables, etc.)
 - B. Attachments to NFR letter
 - Illinois EPA Site Remediation Program Environmental Notice (Legal Description and PIN of property)
 - Maps of the site
 - Table A: Regulated Substances of Concern (if applicable.)
 - Property Owner Certification
 - C. A copy of the ordinance, if applicable, used to address groundwater contamination
1. Place the Illinois EPA Site Remediation Program Environmental Notice on top of the NFR prior to giving it to the Recorder.
 2. If you are not the owner (record title holder) of the property on the date of filing of this NFR, you must attach a **completed** owner's certification form signed by the owner of the property at the time of filing (e.g., if the property recently sold, the new owner must sign).
 3. If any of the terms and conditions of the NFR letter references a groundwater ordinance, you must record a copy of the groundwater ordinance with the NFR letter.
 4. If any of the terms and conditions of the NFR letter references a highway agreement, you must record the highway agreement if specifically required by the municipality granting the agreement, the County or the Illinois Department of Transportation.
 5. Within thirty (30) days of this NFR Letter being recorded by the Office of the Recorder of the County in which the property is located, a certified copy of this Letter, as recorded, shall be obtained and submitted to the Illinois EPA to:

P.J. Gebhardt
Illinois Environmental Protection Agency
Bureau of Land/RPMS
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

6. **Remove this page from the NFR letter, prior to recording.**

If you have any questions call (217) 524-6940 and speak with the "project manager on-call" in the Site Remediation Program.

APPENDIX C

Photos

















